



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,004	10/15/2001	Amit S. Phadnis	CSCO-010/121568	9588
26392 7590 07/29/2008 LAW FIRM OF NAREN THAPPETA C/O LONDON IP, INC. 1700 DIAGONAL ROAD, SUITE 450 ALEXANDRIA, VA 22314			EXAMINER WILSON, ROBERT W	
			ART UNIT	PAPER NUMBER
			2619	
			MAIL DATE	DELIVERY MODE
			07/29/2008 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/976,004

Applicant(s)

PHADNIS ET AL

Examiner

ROBERT W. WILSON

Art Unit

2619

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-26, 28-37, 112-117, 142 and 143 is/are allowed.
- 6) ☒ Claim(s) 79, 80, 85-95, 99-103, 107-109, 118, 122, 127-129, 135, 139 and 140 is/are rejected.
- 7) ☒ Claim(s) 81-82 & 123-124 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing (PTO-846)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 24-26,28-37,79-82,85-95,99-103,107-110,112-118,122-124,127-129,135,139,140,142 and 143.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 79-80, 85-91, 95, 99-103, 107-109, 118, 122, 127-129, 135, 139, & 140 are rejected under 35 U.S.C. 102(e) as being anticipated by Gupta (U.S. Patent No.: 6,278,714).

Referring to claims 79, Gupta teaches: a method of setting up virtual circuits between a first asynchronous transfer mode (ATM) switch and a second ATM switch, said plurality of virtual circuits being setup on a ATM network connecting said first ATM switch to said second ATM switch (The Controlling Device (Fig 3B) performs the method of setting up a plurality of virtual circuits (col. 12 line 40 to 56) between a first Asynchronous Transfer Mode Switch (node A per Fig 1) and a second Asynchronous Transfer Mode Switch (node J per Fig 1), said plurality of virtual circuits setup on a network connecting said first ATM switch to said second ATM switch (The plurality of VCs are setup on an ATM network col. 5 line 2 which interconnects node A (first Asynchronous Transfer Mode Switch) and node J(second Asynchronous Transfer Mode Switch) per col. 12 lines 40 to 56) said method being performed in said first ATM switch (The sending of request and receiving acceptance and sending second request is performed by first switch) said method comprising:

Sending on said ATM network to said second ATM switch a single signaling message requesting a plurality of virtual circuits to be setup between said first ATM switch and said second ATM switch (A first signaling message (Fig 7A, 7B, 7B) requesting a plurality of virtual circuits (VCB) per Fig 16 per col. 8 lines 9 to 49) is sent to node J (second ATM switch))

Receiving an acceptance message in response to sending said single signaling message said acceptance message indicating the a plurality of ATM switches (in a connection path between said first ATM switch and said second ATM switch have set up said plurality of virtual circuits in response to said single signaling message (Fig 1 shows in connection path between said first ATM switch (A per Fig 1) and said second ATM switch (J per Fig 1) have set up said plurality of virtual circuits receives ACK per Fig 17 per col. 7 lines 1 to 8 (acceptance message)

Art Unit: 2619

Wherein said plurality of ATM switches accept said plurality of virtual circuits but immediately provision fewer than said plurality of virtual circuits (VCs are assigned in table based upon what is available or fewer than requested per col. 8 lines 8 to 32) wherein the specific ones of said plurality of virtual circuits accepted but not provisioned from a set of inactive virtual circuits which cannot be used for transporting packets until provisioning is complete (Circuits are setup or provisioned per Fig 16 do not carry traffic) between said first ATM switch (Node A per Fig 1) and said second ATM switch (Node J per Fig 1)

Sending a second signaling message from said first ATM switch to said second ATM switch to complete provisioning of at least one of set of inactive virtual circuits between said first ATM switch and said second ATM switch (Node A sends request (2nd signal) for completing provisioning virtual circuits to Node J per Fig 17 per col. 12 line 57 to col. 13 line 17)

In Addition Gupta teaches:

Regarding claim 80, wherein said acceptance message is received only if each of said plurality of ATM switches is designed to set up of said plurality of virtual circuits in response to said single signaling message, wherein said single signaling message comprises a plurality of information elements wherein a first information element is designed to request set up of a single virtual circuit and a second information element is designed to request set up of a second virtual circuits comprising a plurality of virtual circuits in response to said single signaling message (VCB request per Fig 16 or single signaling message (Fig 7A to 7C) which contains a plurality of information element)

Receiving another acceptance message that only a single message indicating only a single virtual circuit is provisioned if any of a plurality of switches in a connection path is designed not to support set up of said plurality of virtual circuits (receives ACK per col. 7 lines 1 to 8 (2nd acceptance message) to the single signaling message (Fig 7A to 7C) when VC cannot be supported)

Regarding claim 85, wherein said fewer than said plurality of virtual circuits corresponds to one virtual circuit such that only one virtual circuit is provided in response to said single signaling message even when said plurality of switches have set up said plurality of virtual circuits in response to said single signaling message and said acceptance message is received by said first ATM (The reference teaches sending a single message per Fig 7B in which only in a plurality of VCs which are available will be stored in the tables per col. 12 line 47 to col. 14 line 13; however, one of the ACK received back between switches can indicate only a single VC has been set up)

Regarding claim 86, wherein said sending is performed from one of said first ATM system or said plurality of ATM switches (Message is sent from CP which can represent a plurality of ATM switches per col. 5 line 3 and col. 5 lines 54 to 67)

Regarding claim 87, wherein said plurality of virtual circuits (720B1 & 730Bn per Fig 7A) is treated as a group of virtual circuits (710 per Fig 7A) wherein said first ATM switch (Node A

Art Unit: 2619

per Fig 1) and said second ATM switch (node J per Fig 1) support a plurality of groups (Plurality of 710 per Fig 7A) including said group (710 per Fig 7A) said method further comprising maintaining a bundle structure (Table as shown in Fig 8B) associated with each of said plurality of groups (Different VCBs per Fig 8B) wherein the bundle structure (Table per Fig 8B) stores information identifying the specific plurality of virtual circuits (Port (VCI) per Fig 8B) identifying the specific plurality of virtual circuits (VCIs per Fig 8B) forming the corresponding group (VCB # (group) per Fig 8B)

Regarding claim 88, further comprising maintaining a plurality of call reference structures, wherein signaling messages related to each group are received on a corresponding call (Fig 8B is the call reference structure which maintains the state of assignments corresponding to a call in a table structure.) and maintaining a plurality of per-VC structure, wherein each per-VC structure store information relate to a plurality of call parameters accepted for a corresponding one of said plurality of virtual circuits (A table is maintain which stores the PORT (VCI), VCB, NEXT NODE VCB, & Destination per Fig 8A or VC-structure which has information related to VCB and DESTINATION which were call parameters per Fig 7B)

Regarding claim 89, wherein said sending and receiving and each of said maintaining are performed in a switch contained in said connection path said (Each node A thru node J which are in the connection path per Fig 1 send, receives, and maintains a tables per Fig 6 and 7B) said method further comprising:

maintaining a plurality of switch structures, wherein each of said plurality of switch structures stores a mapping of an identifier of each of said virtual circuit in inbound interface in inbound direction to another identifier of the virtual circuit in outbound direction (Additionally each switch has a forwarding table which maps the VCI # identifier of each virtual circuit in inbound direction (Forwarding per Fig 6) and another identifier (VCI#) of each said virtual circuit in outbound direction (Reverse per Fig 6) using said plurality of switches (nodes per Fig 1)

Regarding claim 90, wherein said first ATM switch (node A per Fig 1 is an edge router (switch on edge or network per Fig 1) wherein a signaling message (Fig 7B contains a bundle identifier (VCB REQUEST per Fig 7A) which is propagated without translation by each of said plurality of switches (nodes per Fig 1) (The nodes do not change the VCB Request field)

Regarding claim 91, wherein said plurality of virtual circuits comprise a switched virtual circuit (Virtual circuit bunch or plurality of virtual circuits are set up between switches thus switched virtual circuit per col. 8 line 9 to col. 9 line 20)

Referring to claim 95, Gupta teaches: a method of supporting setting up of virtual circuits between a first asynchronous transfer mode (ATM) switch and a second ATM switch, said virtual circuits being setup on a ATM network connecting said first ATM switch to said second ATM switch (The Controlling Device (Fig 3B) in node J supports the method of setting up a plurality of virtual circuits (set-up VCB per col. 12 lines 40 to 56) between a first Asynchronous Transfer Mode Switch (node A per Fig 1) and a second Asynchronous Transfer Mode Switch (node J per Fig 1), said plurality of virtual circuits terminating on the first ATM switch and said

Art Unit: 2619

second ATM switch (The plurality of VCs terminate on CP as endpoint per col. 5 lines 66 in node A (first Asynchronous Transfer Mode Switch) and terminate (end point of a VC per col. 5 line 65 to col. 6 line 2 & col. 12 lines 40 to 56) node J (second Asynchronous Transfer Mode Switch)) said method comprising:

Receiving from said first ATM switch on said ATM network a signaling request requesting said virtual circuits to be set up between said first ATN switch and said second ATM switch (Node J (second ATM switch) receives a signaling request per Fig 16 per format per Fig 7A, 7B, or 7C) from Node A (First ATM switch) requesting a plurality of virtual circuits (receives a request per col. 8 lines 9 to 49 for virtual circuits to be setup if they are available)

sending an acceptance message (ACK per col. 9 line 7 to 32) as a response to said single signaling message request said acceptance message indicating that said plurality of virtual circuits are set up if said plurality of virtual circuits (VCB REQUEST per Fig 16 and per Fig 7A, 7B, 7C) can be set up between said device (CP per 2) and said second ATM switch (node J per Fig 1) in response to a single request alone (Fig 7A, 7B, or 7C) upon receiving ACK per Fig 16 virtual circuits are setup)

provisioning in said device fewer than said plurality of virtual circuits to said second ATM switch (only circuits which are available are set up virtual per col. 8 line 8 to 47) wherein the specific ones of said plurality of virtual circuits which are set up but not provisioned form a set of inactive virtual circuits which cannot be used to transport packets until provisioning is complete (Circuits setup are inactive until they are requested per Fig 17 and are not available until provisioning complete per col. 8 lines 44 to 49) .

In addition Gupta teaches:

Regarding claim 99, receiving a second signal message requesting activation of at least one of said set of inactive virtual circuits (in response to receiving said second signaling message (Request (second message) per Fig 17 per col. 7 line 1 to 26) between said first ATM switch (Node A per Fig 1) and said second ATM switch (Node J per Fig 1)

Completing provisioning of said at least one of said set of inactive virtual circuits in response to said second ATM switch (Node J per Fig 1) receiving said second signaling message (Fig 17)

sending a completion message in response to said second signaling message said completion message indicating said at least one of said s3et of inactive virtual circuits have been provisioned (ACK per Fig 17 and per col. 7 line 1 to 26)

Regarding claim 100, storing said plurality of parameters associated with said range of virtual circuits and provisioning said range of virtual circuits using said plurality of parameters (Each switch inherently stores and forwards the VCB which has the range of parameters)Provisioning said range of virtual circuits using said plurality of parameters whereby said plurality of

Art Unit: 2619

parameters are transmitted only once for provisioning said range of virtual circuits (The VCB message is only transmitted once in each switch)

Whereby the parameters are transmitted only once for provisioning said range of virtual circuits (Request is only send once)

Regarding claim 101, wherein said single signal request and second signal message is received in the form of ATM cells (The reference teaches ATM switches so the request and second message are inherently ATM cells)

Regarding claim 102, wherein said device comprises one of said first ATM switch and said second ATM switch (Node A and Node J are ATM switches)

Referring to claim 103, Gupta teaches: an apparatus for supporting the setting up of virtual circuits between a first ATM switch and a second ATM switch, said virtual circuits being set up on a ATM network connecting said first ATM switch to said second ATM switching said virtual circuits terminating at said first ATM switch and said second ATM switch (Controlling Device (Fig 3B) in node J (Fig 1) (apparatus) for supporting the setting up a plurality of virtual circuits (VCB per col. 12 lines 40 to 56) between node A (First ATM switch) and node J (second ATM switch) the plurality of virtual circuits being set up (VCB setup per col. 12 lines 40 to 56) on an ATM network (col. 5 line 2) connecting node A per Fig 1 (First ATM switch) to node J per Fig 1 (second ATM switch) with the plurality of virtual circuits terminating (The plurality of VCs terminate on CP as endpoint in nodes per col. 5 lines 66) on node A per Fig 1) and node J (second ATM switch) per col. 12 lines 40 to 56)

An in-bound interface for receiving from a first ATM switch on said ATM network a single signaling request requesting a virtual circuits to be set up (Node J (Fig 1) has COMMUNICATIONS PORT (385 PER Fig 3B) (in-bound interface) which is capable of receiving from Node A (Fig 1) (First ATM switch) to Node J (second ATM switch) on the ATM network (Fig 1) a single signal request (Fig 7A, 7B, or 7C) requesting said plurality of virtual circuits to be setup (VCB setup per col. 12 lines 40 to 56) wherein said acceptance message is in response to said single signaling message (ACK per Fig 16)

a call control logic (The node J has a CPU per Fig 3B or call control logic) for receiving a single signaling message (Fig 7A, 7B, or 7C) said call control logic receiving VCB request per Fig 16) sending an acceptance message (ACK per Fig 16) if said plurality of virtual circuits (VCB) can be set up between a device (node) containing said call control logic (CP) and said second ATM switch (node J per Fig 1) in response to said single signaling request (Fig 7A, 7B, or 7C) per col. 12 lines 40 to 56) wherein said acceptance message is sent as response to said single signaling message (ACK per Fig 16)

wherein said acceptance message is sent as a response to said single signaling message (ACK sent in response to VCB request per Fig 16)

Art Unit: 2619

wherein said call control logic is for provisioning fewer than said plurality of virtual circuits to said second ATM switch before sending said acceptance message (col. 9 lines 9 to 32) wherein the specific ones of said plurality of virtual circuits which are set up but not provisioned from a set of inactive virtual circuits which cannot be used (Circuits setup per Fig 16 cannot be used until requested and ACK per Fig 17)

wherein the specific ones of said plurality of virtual circuits which are set up but not provisioned form a set of inactive virtual circuits which cannot be used for transporting packets until provisioning is complete (Virtual circuits per Fig 16 are inactive and comprise a set which cannot be used until requested per Fig 17 and per col. 8 lines 44 to 49) .

In Addition Gupta teaches:

Regarding claim 107, wherein said inbound interface is designed to receive a second signaling message requesting activation of at least one said inactive virtual circuits to said second ATM switch wherein said call control logic is configured to complete provisioning of said at least one of said set of inactive virtual circuits and then to send a completion message indicating said at least one of said set of said inactive virtual circuits has been activated (Fig 17 shows receiving Request to service VCB or second signal where Node J is the second ATM switch per Fig 1)

Regarding claim 108, wherein said single signaling message contains a plurality of parameters related to a range of virtual circuits comprised in said plurality of virtual circuits said apparatus further comprising a memory storing said plurality of parameters associated with said range of virtual circuits using said plurality of parameters, whereby said plurality of parameters are transmitted only once for provisioning said range of virtual circuits (Fig 7A single signaling message contains a plurality of parameter and range (no of VC) and the values are stored in table per Fig 8B)

Regarding claim 109, comprising one of said first ATM switch said second ATM switch (A & J are ATM switches)

Referring to claim 118, Gupta teaches: a device for supporting setting up a virtual circuits between a first ATM switch and a second ATM switch, said plurality of virtual circuits being set up on a ATM network connecting said first ATM switch to said second ATM switch , each of said plurality of virtual circuits terminating at said first ATM switch and said second ATM switch, (Controlling Point (210 per Fig 2) (device) for the supporting setting up a plurality of virtual circuits (VCB) between node A (First ATM switch) and node J (second ATM switch) the plurality of virtual circuits being set up on an ATM network (col. 5 line 2) connecting node A per Fig 1 (First ATM switch) to node J per Fig 1 (second ATM switch) with the plurality of virtual circuits (The plurality of VCs terminate on CP as endpoint node A per col. 5 lines 66) terminating on node A per Fig 1) and node J (second ATM switch per col. 12 lines 40 to 56) said device comprising: means for receiving from said first ATM switch on said ATM network a single signaling request requesting a plurality of virtual circuits to be set up to said second ATM switch (385 PER Fig 3B) (means for receiving) within the Control Point which is capable of receiving from node A (Fig 1) (First ATM switch) on the ATM network (Fig 1) a single signal

Art Unit: 2619

request (Fig 7A, 7B, or 7C) requesting said plurality of virtual circuits (VCB) to be setup to node J (second ATM switch) per col. 12 lines 40 to 56)]

means for sending an acceptance message if said plurality of virtual circuits can be set up between said device and said second ATM switch in response to said single signaling request alone wherein said acceptance message is sent as a response to said single signaling request (385 PER Fig 3B) (means for sending) within the Control Point which is capable of receiving from node A (Fig 1) (First ATM switch) on the ATM network (Fig 1) a single signal request (Fig 7A, 7B, or 7C) requesting said plurality of virtual circuits (VCB) to be setup on node J (second ATM switch) per col. 12 lines 40 to 56)]

means for providing fewer than said plurality of virtual circuits in said device to said second ATM switch (CPU per Fig 3 or means for providing)

wherein the specific one of said plurality of virtual circuits which are set up but not provisioned form a set of inactive virtual circuits which cannot be used for transporting packets until provisioning is complete (provisioning not complete per col. 8 lines 44 to 49)

Referring to claims 122; Gupta teaches: a computer readable medium storing one or more sequences of instructions for causing a device to set up a virtual circuits between a first asynchronous transfer mode (ATM) switch and a second ATM switch, said plurality of virtual circuits being setup on a ATM network connecting said first ATM switch to said second ATM switch (The Controlling Device (Fig 3B) performs the method of setting up a plurality of virtual circuits (col. 12 line 40 to 56) between a first Asynchronous Transfer Mode Switch (node A per Fig 1) and a second Asynchronous Transfer Mode Switch (node B per Fig 1), said plurality of virtual circuits setup on a network connecting said first ATM switch to said second ATM switch , wherein execution of said one or more sequence of instructions by one or more processor contained in said device causes (The plurality of VCs are setup on an ATM network col. 5 line 2 which interconnects node A (first Asynchronous Transfer Mode Switch) and node J(second Asynchronous Transfer Mode Switch) per col. 12 lines 40 to 56) said device performing::

Sending on said ATM network to said second ATM switch a single signaling message requesting a plurality of virtual circuits to be set up (A first signaling message (VCB request per Fig 7A, 7B, 7B and Fig 16) requesting a plurality of virtual circuits (VCB per col. 8 lines 9 to 49) is sent to node B (second ATM switch)

Receiving an acceptance message as a response to said single signaling message said acceptance message indicating the a plurality of ATM switches (Fig 1) in connection path between said first ATM switch (A per Fig 1) and said second ATM switch (B per Fig 1) have set up said plurality of virtual circuits in response to said single signaling message receives ACK per col. 7 lines 1 to 8 (acceptance message)

Wherein said plurality of ATM switches accept said plurality of virtual circuits but immediately provision fewer than said plurality of virtual circuits to said second ATM switch (VCs are

Art Unit: 2619

assigned in table but without traffic (provisioning fewer) which are associated with VCs to Node J or second ATM switch per col. 8 lines 8 to 32)

Wherein the specific ones of said plurality of virtual circuits which are set up but not provisioned form a set of inactive virtual circuits which cannot be used for transporting until provisioning is complete (Fig 16 shows setting up virtual circuit but are not provisioned until active traffic is sent per col. 8 line 45 to line 50

Sending a second signaling message to complete provisioning of at least one of said set of inactive to said second ATM switch (ACK per Fig 16 or 2nd signaling message to Node J per Fig 1 or second ATM switch)

In Addition Gupta teaches:

Regarding claim 127, wherein said fewer than said plurality of virtual circuits corresponds to one virtual circuit such that only one virtual circuit is provisioned in response to said first signaling message (360 or 365 per Fig 3B are capable of storing software for performing the method per Fig 16)

Regarding claim 128 switch comprising storing bundle structure associated with plurality of groups wherein said bundle structure stores information identifying the specific plurality of virtual circuits forming a corresponding group (360 or 365 per Fig 3B are capable of storing Fig 8B

Regarding claim 129, maintains a plurality of call reference structures, wherein each of said plurality of call reference structures maintains the state of a call wherein signal message related to each group are received on a corresponding call per Fig 8A) and maintaining a plurality of per-VC structures, wherein each per-VC structure stores information related to a plurality of call parameters accepted for ea corresponding one of said plurality of virtual circuits (Fig 8B) which is capable of being stored in 360 or 365 per Fig 3B)

Referring to claim 135, Gupta teaches: a computer readable medium (col. 6 line 48 to 64) storing one or more sequences of instructions (col. 4 lines 7 to 50) for causing a device to support setting up virtual circuits between a first ATM switch and a second ATM switch, said plurality of virtual circuits being set up on a ATM network connecting said first ATM switch to said second ATM switch , each of said plurality of virtual circuits terminating at said first ATM switch and said second ATM switch, wherein execution of said one or more sequences of instructions by one or more processors contained in said device causes said one or more processors to perform the action (Controlling Point (210 per Fig 2) (device) for the supporting setting up a plurality of virtual circuits between node A (First ATM switch) and node J (second ATM switch) the plurality of virtual circuits being set up on an ATM network connecting node A per Fig 1 (First ATM switch) to node J per Fig 1 (second ATM switch) with the plurality of virtual circuits terminating (The plurality of VCs terminate on CP as endpoint node A per col. 5 lines 66 terminating on node A per Fig 1) and node J (The plurality of VCs

Art Unit: 2619

terminate on CP as endpoint node J per Fig 1 & per col. 5 lines 66. A CPs (processors) contain RAM which is used to execute the instructions to perform the action per col. 4 line 6 to col. 8 line 49) said device to perform the action of:

Receiving from said first ATM switch on said ATM network a signaling request requesting a plurality of virtual circuits to be set up to a second ATM switch (node J (receives) a signaling request (Fig, 7A, 7B, or 7C) requesting a plurality of virtual circuits (VCB) per Fig 16 per col. 8 lines 9 to 49)

Sending an acceptance message if said plurality of virtual circuits can be set up between said device and said second ATM switch in response to said single signaling request alone wherein said acceptance message is sent as a response to said single signaling request sending an acceptance message (ACK per Fig 16)

Provisioning fewer than said plurality of virtual circuits to said second end system before performing said sending (Fig 16 provisions only those that are available or fewer to Node J or second end system)

Wherein the specific ones of said plurality of virtual circuits which are set up but not provisioned form a set of inactive virtual circuits which cannot be used for transporting packets until provisioning is complete (Fig 16 shows setting up virtual circuit but are not provisioned until active traffic is sent per col. 8 line 45 to line 50)

In Addition Gupta teaches:

Regarding claim 139, further comprising: receiving a second signaling message requesting activation of at least one of said set of inactive virtual circuits (Fig 17) completing provisioning of said at least one of said set of inactive virtual circuits (Fig 17) sending a completion message in response to said second signaling message said completion message indicating said at least one of set of inactive virtual circuits have been activated (ACK per Fig 17)

Sending a completion message indicating said at least one of said not-as-yet provisioned virtual circuits have been activated (col. 7 line 1 to 27 & col. 9 lines 21 to 32)

Regarding claim 140, storing said plurality of parameters associated with the range of virtual circuits and provisioning said range of virtual circuits using said plurality of parameters whereby the plurality of parameters are transmitted only once for provisioning said range of virtual circuits (The VCB request is inherently stored in each node and is only passed once before the VCs are setup and the request contains the range of parameters)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 92-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (U.S. Patent No.: 6,278,714) in view of Spiegel (US Patent No.: 5,649,108)

Referring to claim 92, Gupta teaches the method of claim 79 and a signaling message

Gupta does not expressly call for: a common format comprising an acceptance message

Spiegel teaches: a common format comprising an acceptance message per Fig 3 & per col. 5 line 63 to col. 6 line 7.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the common format of Spiegel in place of the two separate message of Gupta so that each switch along the path knows the detailed status of acceptance.

In addition Gupta teaches:

Regarding claim 93, wherein said format allows a range of virtual circuits to be specified, said format further allowing a plurality of traffic parameters to be specified for all of said range of virtual circuits wherein said plurality of parameters in said single signal message specify the desired parameters and said plurality of parameter in said acceptance message are specified.(Fig 7A is the single message)

Regarding claim 94, further comprising sending a release message requesting relate of another range of virtual circuits (breakdown request or release per col. 13 line 17 to 29)

Allowable Subject Matter

5. Claims 24-26, 28-37, 110, 112-117, & 142-143 are allowed. The following is an Examiner's statement of reasons for allowance:

Art Unit: 2619

Claims 24-26, 28-37, 110, 112-117, & 142-143 are considered allowable since no prior art reference or combination of prior art references disclose or suggest the combination of limitations specified in the independent claims including :

“wherein said first signaling message is a single signaling message, wherein said single signaling message comprises a plurality of information elements, wherein a first information element is designed to request set up of a single virtual circuit comprised in said first plurality of virtual circuits and a second information element in the form of a non-mandatory information elements according to a signaling specification used in said ATM network designed to request set up of a second virtual circuit comprised in said first plurality of virtual circuits;

an inbound interface designed for receiving on said ATM network a first acceptance message indicting that only said single virtual circuit is set up if any of the plurality of switches in connection path between said first end system and said second end system is designed not to support processing of said non-mandatory information elements wherein said first acceptance message is received in response to sending said first information element contained in said signaling message to said second end system” as specified in claim 24 in combination with other claimed limitations.

“means for sending on said ATM network to said second ATM switch a single signaling message requesting a plurality of virtual circuits to be set up, wherein said single signaling message comprises a plurality of information elements wherein a first information element is designed to request a set up of a single virtual circuit comprised in said plurality of virtual circuits, and a second information element in the form of a non-mandatory information element according to a signaling specification used in said ATM network is designed to request set of a second plurality of virtual circuits comprised in said plurality of virtual circuits and

means for receiving an acceptance message in response to sending said single signaling message; said acceptance message indicting that only said single virtual circuit is provisioned if any of a plurality of switches in a connection path between said device and said second ATM switch is designed not to support processing of said non-mandatory information element” as specified in claim 110 in combination with other claimed limitations

“said single signaling message includes a first information element and a non-mandatory information element according to a signaling protocol, wherein said first information element requests setting up a virtual circuit and said non-mandatory element requests setting up a second virtual circuit wherein said first virtual circuit and said second virtual circuit are contained in said plurality of virtual circuits wherein said non-mandatory information element can be ignored by said first ATM switch and said second ATM switch according to said signaling protocol.

"if said second ATM switches does not support processing of said non-mandatory information element said second ATM switch ignoring said non-mandatory information element and processing said first information element to provision said first virtual circuit, said second ATM switch sending a second acceptance message as a response to said single signaling message indicating that only said first virtual circuit has been provisioned in response to said single signaling message" as specified in claim 142 in combination with other claimed limitations.

6. Claims 81-82 & 123-124 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

7. Applicant's arguments filed 5/12/08 have been fully considered but they are not persuasive.

The examiner respectfully disagrees with the applicant's argument that Gupta does not expressly call for: acceptance message is received for a request number of virtual circuits but fewer than the requested number are provisioned by the switches

Gupta teaches: acceptance message is received for a request number of virtual circuits but fewer than the requested number are provisioned by the switches (Ack per Fig 17 and per col. 7 lines 1-8 or acceptance message which is associated with the available number that is fewer than the requested number of requested number of virtual circuits per col. 8 lines 8 to 32)

The examiner respectfully disagrees with the applicant's argument which cites "A Short Introduction to ATM concepts" written by Krupick which defines provisioning occurring when tables are setup between switches means that Gupta also has provisioned the virtual circuits when the tables have been set up. Applicant has failed to cite specific paragraphs in Gupta which define provisioning as being complete upon setting up of tables. It should also be noted that Gupta specifically states "no traffic is passed but virtual circuits are defined" per col. 8 lines 45 to 49. Gupta goes on to say that no traffic is passed until QoS is also processed; therefore, the examiner asserts that provisioning has not been completely performed until QoS is evaluated and traffic is passed; therefore, examiner asserts applicant's argument is not persuasive that Gupta teaches: "all virtual circuits in the requested bunch are provisioned" since provisioning entailed setting up of the tables in the switches in the path because traffic is not passed until QoS has been evaluated which the examiner asserts is a part of the provisioning process.

Art Unit: 2619

The examiner respectfully disagrees with the applicant's argument that Gupta does not expressly call for: sending a second signal message from said first ATM switch to said second ATM switch to complete provisioning of at least one of set of inactive virtual circuits between said first ATM switch and said second ATM switch.

Gupta teaches: sending a second signal message from said first ATM switch to said second ATM switch to complete provisioning of at least one of set of inactive virtual circuits between said first ATM switch and said second ATM switch (A request (second signal is sent to send traffic per Figure 17 and per col. 12 line 57 to col. 13 line 17.)

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT W. WILSON whose telephone number is (571)272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571/272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2619

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert W Wilson/
Primary Examiner, Art Unit 2619

RWW
7/28/08